



Product & Instruction Bulletin 8700/8800

Release D, Effective December 2009 (*Replaces C, Jan 2000*)

See Bulletin Change Summary at end of Bulletin

Now Includes Contents of Instruction Bulletin 4.12

Scotchprint®

Exterior Four Color Toner Series 8700/8800

For Electrostatic Printing Only

Description

Four Color Electrostatic Printing

This is the reproduction of a full color original subject as a halftone. Black plus the three basic halftone colors (yellow, cyan and magenta) are printed sequentially in close registration to form the image.

The images are reproduced on 3M™ Trident Transfer Media, which is transferred with heat and pressure to 3M brand graphic films designated for electrostatic printing. The printed images must have an approved overlamine. See the base film's Product Bulletin for details.

Recommended Types of Graphics and End Uses

Refer to the base film or flexible substrate's Product Bulletin for details on specific constructions and any warranty that may apply when using this product.

Limitations of End Uses

3M specifically does not recommend or warrant the following uses, but please contact us to discuss your needs or recommend other products. The base film Product Bulletin may have additional limitations.

- Printing characteristics of toners more than 36 months after date of manufacture.
- Use in printers other than those recommended by 3M.
- Printing on non-3M medias.

Compatible Products

- 3M™ Trident Transfer Media
- 3M brand graphic films designated for electrostatic printing
- 3M™ Cleaner 8790; Use for flushing and cleaning printers
- 3M™ Toner Module Thinner 8791; Use with the 3M™ High Capacity Toner Station 9531 or 9533
- 3M™ Toner Module Cleaner 8792; Use for flushing and cleaning the toner station

Product Line

Toners are specially formulated the Scotchprint® Printer 2000, with or without a toner station, and are available as concentrates and premixes (part A & B).

Color	For Printer		For Toner Station		Size (Premix or Concentrate)
	Type	No.	Type	No.	
Yellow	Premix	8730N	Concentrate	8835	1.2 gal
Magenta	Premix	8731N	Concentrate	8836N	1.2 gal
Cyan	Premix	8732	Concentrate	8837E	1.2 gal
Black	Premix	8733	Concentrate	8838E	1.2 gal

Warranty Information

Warranty and Limited Remedy

The following is made in lieu of all other express or implied warranties, including any implied warranty of **merchantability** or fitness for a particular purpose or implied warranty arising out of a course of dealing, custom or usage of trade: all 3M products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this Product Bulletin. 3M will replace or refund the price of any 3M materials that do not meet this warranty within the specified time periods. These remedies are exclusive. **In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor or non-3M materials charges.**

See the *3M Graphics Market Center Warranty Brochure* at 3Mgraphics.com, which gives the terms, additional limitations of the warranty, if any, and limitations of liability.

Warranted Durability

Refer to the Product Bulletin for the base film you are using for all graphic construction options and warranties.

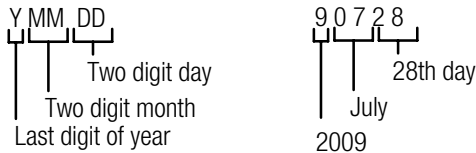
Carefully follow all instructions in the Instruction Bulletins. Processing conditions can affect the durability of the toner.

To ensure performance for durability and maintain the 3M™ MCS™ Warranty (where offered), the toners should be printed at or above the following minimum reflective optical densities.

Black	Yellow	Cyan	Magenta
1.40	0.85	1.25	1.30

Shelf Life, Shipping and Storage

- The date of manufacture is noted on both the bottle and box as a 5 digit number with a date code of YMMDD. For example, 90728 means July 28, 2009. The manufacturing lot number is a 7 or 8 digit number.



- Use toner premix or concentrates within 36 months of the date of manufacture. Toners older than 36 months may not have optimal printing performance.
For graphics covered by the 3M MCS warranty, 3M will warrant their durability when printed with toners older than 36 months if the minimum print densities are maintained.
- Store the toner in its original container, tightly sealed, out of direct sunlight and at 40° to 100°F (4° to 38°C).
- Toners may be regulated for shipping. In the United States, toners are not regulated for ground shipment. They are, however, regulated for air shipments and should not be shipped by air without proper documentation. Opened toner bottles (foil seal broken) no longer meet UN packaging guidelines and cannot be shipped air without special UN-approved over packing containers.
- Cleaners and thinners 8970, 8791 and 8792 should be used within 5 years of the date of manufacture.

Putting Toners in Printers

Refer to the user's guides and manuals supplied with your printer for additional details on how to install and use toners in your printer.

Using Toners in Printers

The processing of four-color, electrostatically printed graphics requires careful preparation. Detailed instructions and procedures are contained in the user's guides supplied with your printer.

Toner premixes are shipped as two-part combo packs to improve shelf life. They require mixing prior to use. For optimum printing results, mix the toners at least 8 hours before using and then use these mixed toners as soon as possible. Put mixed toners into the printer within one month of mixing.

On a weekly basis, remove the premixed toners from the printer and the concentrates from the toner station, replace the cap, and shake well, to maintain good dispersion and optimal printing characteristics.

Two-Part Pre-Mix Instructions

Read these instructions before opening the bottles, and use the when mixing two-part premix toners, Part A and Part B.

Mix the two-part toners and then allow an 8 hour rest before using them in the printer.

1. For personal safety, we recommend wearing protective gloves, glasses and lab coat.
2. Before removing the cap from the smaller bottle, shake it for 1 minute.
3. Place the larger bottle (clear liquid) onto a piece of absorbent paper on the floor.
4. Remove the cap from the large bottle and remove the metal foil seal.
5. Carefully remove the cap and seal from the small bottle.
6. Slowly pour the contents of the small bottle into the large bottle.
7. When the small bottle is empty, replace the cap.
8. Tightly fasten the large cap onto the large bottle.
9. Do not lift the large bottle, but thoroughly shake it by sliding it back and forth on the floor for thirty (30) seconds.
10. Let this pre-mix sit at room temperature for 8 hours before using in your printer, and then use these mixed toners as soon as possible.

Toner Replacement Steps

1. Allow the printer to drain the toner lines for 5 minutes before removing the premix and concentrate bottles.
2. Replace the black, yellow, cyan, and magenta toner premix bottles with cleaner 8790.
3. Replace the black, yellow, cyan, and magenta concentrate bottles with cleaner 8792.
4. Run a flush cycle to clean out any current toner and concentrate that is in the toner lines and pumps of the printer and toner station. (Refer to the Printer 2000 Operator's Guide for further details on flushing the printer and toner station.)
5. After the flush cycle is completed, remove the cleaners and replace them with the NEW black, yellow, cyan, and magenta toner premixes in the printer, and reinstall, or replace if needed the concentrate in the toner station.
6. Clean the printer so it is ready to produce graphics using the new toners. Print a test pattern and measure the densities of a 100% solid fill of each color of the new toners.
7. Change the high voltage settings so that the densities are within the ranges listed below.

Color	Density Range		
	Minimum Density	Target Density	Maximum Density
Black	1.40	1.50	1.55
Yellow	0.85	0.95	1.05
Cyan	1.25	1.35	1.40
Magenta	1.30	1.40	1.45

Color Balance

To obtain the best color balance for your system, it is recommended that you generate and use a Printer Calibration file. The file is used to adjust tone reproduction of your printer and will compensate for changes in toner characteristics.

Disposal and Recycling

Toners

Never pour toner waste down a drain, pour it on the ground, or in any way release it directly into the environment.

Unlike most printing processes, there is more than just residual toner left in the container when it is time for disposal. Approximately 4 to 10 quarts (4 to 10 liters) of electrostatic toner waste is generated each time the toners are changed, depending on the printer. Liquid toner waste is hazardous according to U.S. EPA definitions because it has a low flash point [104°F (40°C)]. It has the EPA Hazardous Waste Number D001 (Ignitable). You should arrange to have this waste picked up by a reputable company that specializes in the disposal of hazardous waste.

Toner Bottles

Toner bottles (premix, concentrate, and cleaner) are made of High Density Polyethylene (HDPE) plastic, which is commonly recycled in the same way as soda bottles in most areas.

Bottles with an appreciable amount of toner may be subject to special disposal regulations. Empty toner bottles may be cleaned with the following procedure to prepare them for recycling or disposal.

1. Rinse thoroughly with 3M™ Cleaner 8790, an isopar cleaner. Dispose of this waste in a hazardous waste container.
2. Rinse thoroughly with isopropanol. Dispose of this waste in a hazardous waste container.
3. Rinse with water. Dispose of this waste in a hazardous waste container.
4. Follow with two additional water rinses. These two rinses may be poured down the drain.
5. Air dry.
6. Make the containers unusable by puncturing with holes and spray painting the labels.

Cleaning Bottles

The wipes used for cleaning the printers are saturated with solvent and are considered hazardous waste. Dispose of used, saturated wipes in accordance with local regulations.

3M Related Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

The information in 3M Product and Instruction Bulletins is subject to change. Current Bulletins are available at 3Mgraphics.com. The techniques described in these Bulletins are required when applying a 3M warranted graphic, but are also practical recommendations when using promotional materials for non-warranted graphics. Additional Bulletins may be needed as indicated in the 3M Related Literature section of other 3M components you use.

Bulletin types: PB = Product Bulletin; PB-IB = Product & Instruction Bulletin; IB = Instruction Bulletin

Subject	Type	Bulletin No.
3M™ Trident Transfer Paper - Transferring and laminating electrostatically printed images	PB IB	Trident 4.7
3M Graphic Protection Products -Cold roll lamination	PB IB	GP-1 4.22

Base Films and Substrates

Please visit our website to identify and select the additional Product and Instruction Bulletins you need for a successful application.

Warranties

3M Graphics Center Warranty Brochure 3M™ MCS™ Warranty matrices	Go to 3Mgraphics.com, Warranties
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Bulletin Change Summary

The Bulletin has been updated and merged with Instruction Bulletin 4.12. References to unsupported products have been removed and information has been updated in general. Shelf life has been increased to 3 years. Please read thoroughly!



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